



United States  
Department of  
Agriculture

Food Safety  
And Inspection  
Service

Technical  
Service  
Center

Suite 300, Landmark Center  
1299 Farnam Street  
Omaha, NE 68102

**AUDIT REPORT FOR MEXICO**  
**NOVEMBER 28 THROUGH DECEMBER 8, 2000**  
July 13, 2001

**INTRODUCTION**

**Background**

This report reflects information that was obtained during an audit of Mexico's meat inspection system from November 28 through December 8, 2000. Eleven of the 34 establishments certified to export meat to the United States were audited. One of these was a slaughter establishment; three had combined slaughter and boning/cutting operations; and the remaining seven were conducting further-processing operations.

During the last FSIS audit of the Mexican meat inspection system, which was conducted in November 1999, twenty establishments were audited: Twelve establishments (TIF-57, 66, 86, 89, 90, 114, 120, 148, 150, 177, 188, and 209) were acceptable, five (TIF-15, 45, 95, 104, and 105) were recommended for re-review, and three (TIF-74, 111, and 169) were unacceptable. The following major deficiencies were identified at that time:

1. Post-mortem inspection was being conducted by "accredited veterinarians," who were not employed by the government, but rather by the establishments, in two of the eight slaughter establishments audited. This was a repeat finding from the previous FSIS audit in April-May 1999 (at that time, it had been determined that establishment employees were conducting post-mortem inspection in ten of the thirteen slaughter establishments eligible to export).
2. HACCP implementation was found to be deficient in ten of the twenty establishments audited.
3. In the majority of the slaughter establishments audited, the auditors observed failure by meat inspection personnel to follow the complete post-mortem inspection procedures mandated by USDA.
4. Sanitation controls were found to be inadequate in twelve of the twenty establishments audited.
5. Development and implementation of the requirements for Sanitation Standard Operating Procedures had been inadequate/incomplete in eleven of the establishments audited.
6. There was inadequate government oversight of the *Salmonella* testing procedures in the laboratories to ensure compliance with U.S. requirements.

At the time of this audit, Mexico was eligible to export fresh and processed beef and pork to the United States. Poultry products made from poultry imported directly from the United States were also eligible for export back to the U.S.; however, poultry inspection controls were not within the scope of this audit.

From January 1 through October 31, 2000, 14 Mexican establishments exported 10,155,286 lbs. of products to the United States. USDA officials at U.S. ports of entry rejected 0.177% of those products. None of the rejections were for reasons of public health concern.

## PROTOCOL

The purpose of this new audit was to evaluate the extent and effectiveness of the corrective actions and preventive measures that had been taken by the *Secretaria de Agricultura, Ganaderia, y Desarrollo Rural* (SAGAR) in response to the deficiencies identified, as well as to evaluate overall compliance with the other requirements enforced by FSIS in all countries that have been recognized as eligible to export meat products to the United States.

This on-site audit was conducted in three parts, by a team of FSIS auditors (hereinafter called the auditors—see Entrance Meeting). One part involved visits with Mexican national meat inspection officials to discuss oversight programs and practices, including enforcement activities. The second entailed on-site visits to eleven establishments, and the third visits to seven laboratories culturing field samples for the presence of microbiological contamination with *Salmonella* and, where applicable, with generic *Escherichia coli* (*E. coli*).

Mexico's program effectiveness was assessed by evaluating five areas of risk: (1) sanitation controls, including the implementation and operation of Sanitation Standard Operating Procedures (SSOPs), (2) animal disease controls, (3) residue controls, (4) slaughter/ processing controls, including the implementation and operation of Hazard Analysis and Critical Control Point (HACCP) systems and the *E. coli* testing program, and (5) enforcement controls, including the testing program for *Salmonella* species.

During all on-site establishment visits, the auditors evaluated the nature, extent, and degree to which findings impacted on food safety and public health, as well as overall program delivery. The auditors also determined if establishment and inspection system controls were in place. Establishments that do not have effective controls in place to prevent, detect and eliminate product contamination/adulteration are considered unacceptable and therefore ineligible to export products to the U.S., and are expected to be delisted accordingly by the country's meat inspection officials (this was the case with one establishment—see below, in the ESTABLISHMENT AUDITS section).

## RESULTS AND DISCUSSION

### Summary

Effective inspection system controls were found to be in place, except as otherwise noted, in ten of the eleven establishments audited; three of these (TIF-89, 105, and 111) were recommended for re-review. One establishment (TIF-120) was found by both the Baja California SAGAR State Supervisor and, independently by the auditor, to be unacceptable. This decision was *not* supported by SAGAR headquarters officials; however, the auditors were not informed of this lack of support until the exit meeting from the country. Details of this situation, as well as of the audit findings, including compliance with HACCP, SSOPs, and testing programs for *Salmonella* and generic *E. coli*, are discussed later in this report.

As stated above, several major deficiencies had been identified during the last audit of the Mexican meat inspection system, conducted in November 1999. During this new audit, the auditors evaluated whether these deficiencies had been addressed and corrected:

1. *Post-mortem inspection was being conducted by “accredited veterinarians,” who were not employed by the government, but rather by the establishments, in two of the eight slaughter establishments audited.* During this new audit, in Est. TIF-120, post-mortem inspection of beef viscera was being performed by an “accredited veterinarian,” who was not employed by the government, but rather by the establishment.
2. *HACCP implementation was found to be deficient in ten of the twenty establishments audited.* During this new audit, HACCP implementation was found to be deficient in six of the eleven establishments audited.
3. *In the majority of the slaughter establishments audited, the auditors observed failure by meat inspection personnel to follow the complete post-mortem inspection procedures mandated by USDA.* During this new audit, post-mortem inspection procedures were followed as required, except that they were not performed by a full-time employee of the government meat inspection service in Est. TIF-120.
4. *Sanitation controls were found to be inadequate in twelve of the twenty establishments audited.* During this new audit, sanitation deficiencies were found in five of the eleven establishments audited.
5. *Development and implementation of the requirements for Sanitation Standard Operating Procedures had been inadequate/incomplete in eleven of the establishments audited.* During this new audit, SSOP development/implementation deficiencies were found in four of the eleven establishments audited.

6. *There was inadequate government oversight to ensure compliance of the Salmonella testing procedures in the laboratories with U.S. requirements.* Improvement was noted in the application of the *Salmonella* testing program, but further improvement was found to be needed to achieve full compliance with FSIS requirements. See the Testing for Salmonella Species section later in this report.

The other deficiencies noted during this new audit included the following (these will be discussed in greater detail under the appropriate risk-area headings later in this report):

- In Est. TIF-111, ante-mortem inspection did not fulfill FSIS requirements.
- There was no program in place for routine species verification of products produced in establishments where multiple species were processed.
- The laboratories had failed to implement (1) the FSIS method for detection of *Salmonella* in PR-HACCP carcass sponge and ground meat samples representing products intended for export to the U.S., (2) use of a procedure that would detect *E. coli* serotype O157:H7 in ground beef samples, (3) reliably compliant sponge sampling and testing of carcasses for generic *E. coli* and methods for analysis and calculation of results, (4) oversight of the materials used for the sampling sponges and the amount of diluent.
- Light was inadequate at inspection stations in Ests. TIF-57, 111, and 120.
- Insanitary dressing procedures were identified in Ests. TIF-105 and 111.
- Pest control was found to be inadequate in Ests. TIF-89 and 120.

### Entrance Meeting

On November 28, an entrance meeting was held in the head offices of the *Secretaria de Agricultura, Ganaderia, y Desarrollo Rural* (SAGAR: Secretary of Agriculture, Meat Industry, and Rural Development) in Mexico City, and was attended by the FSIS audit team, consisting of Dr. Gary D. Bolstad (Lead Auditor) and Dr. Douglas Parks, International Audit Staff Officers; Dr. F.A. Khan, Audit Staff Officer; Mr. Victor Cook, Staff Officer and Microbiologist, Biosciences Division, Office of Public Health and Science; and Mr. Dennis Reisen, Processing Operations Staff Officer; SAGAR was represented by Dr. Angel Omar Flores, Director General (briefly); Dr. Octavio Carranza, Director, Imports, Exports, and Industry Services; Dr. Martha Chavez, Deputy Director, Imports, Exports, and Industry Services; and Dr. Alejandro Jiménez Ceballos, Chief of the Department of Federally Inspected Meat Processing and Slaughter Facilities; furthermore, Mr. Salvador Trejo, Agricultural Specialist with the American Embassy in Mexico City was also present.

Topics of discussion included the following:

1. The lead auditor provided a copy of the latest FSIS Quarterly Regulatory and Enforcement Report and inquired whether similar information is made available to the public in Mexico. SAGAR officials replied that it is not, but stated that the new President-Elect of Mexico, whose government was to be inaugurated in the near future, had announced his intent to have an open policy to make this type of information available to the general public.
2. The lead auditor provided a copy of the latest USDA information on imported meat and poultry products from Mexico presented, reinspected and rejected at U.S. ports of entry.
3. The lead auditor provided copies of the data-collection instruments that would be used by the audit team during their visits to establishments and laboratories.
4. FSIS had sent a letter of inquiry to all countries exporting meat products to the United States regarding the new requirements for *Salmonella* testing of minor species. The lead auditor inquired about the status of SAGAR's reply to this letter. SAGAR officials responded that the letter of reply was expected to be completed within a short time and that FSIS should expect to receive it around the middle of December 2000.
5. The lead auditor reminded the SAGAR officials of the January 1, 2001 deadline for the official notification to FSIS of the establishments that SAGAR would be certifying as eligible to export meat products to the United States.
6. The lead auditor informed the SAGAR officials that International Policy Division had just received official notification of the delistment by SAGAR of Establishments TIF-15, 84, 114, 177, and 209, and inquired about the reasons for the sudden delistments. The SAGAR officials' explanation included the following information:
  - The management of Est. TIF-15 had requested voluntary delistment. The letter notifying FSIS of the delistment was dated 10/26/00. The reason given was that there were no plans for export to the US in the immediate future. The officials said that SAGAR considered the delistment to have become official with the official notification by SAGAR of the establishment and of the agriculture personnel in the American Embassy on November 8, 2000
  - The management of Est. TIF-177 had also requested voluntary delistment (no reason was given). The letter notifying FSIS of the delistment was dated 8/31/00. The official notification by SAGAR to the establishment and the embassy, however, was 8/15/00. The SAGAR officials stated that the date on the letter must be erroneous.
  - Ests. 84, 114 and 209 were "temporarily" delisted by the SAGAR central offices after a SAGAR review of documents from these establishments indicated that the requirements for ensuring the strict separation of domestic and export-eligible product were not being reliably met. The letters of notification of delistment were dated 10/31/00. The establishments and the embassy were notified of the delistment on 11/17/00, and the SAGAR officials said that SAGAR considered the delistments to have become official as of the

latter date. The lead auditor requested copies of the documentation created by SAGAR relating to the decision to delist these establishments; the SAGAR officials said it would be provided for the country exit meeting.

When the lead auditor inquired as to the reason for the time lag between the dates on the official letters of delistment and the dates when establishments and the embassy were notified of the delistments, the SAGAR officials replied that the time lag is the result of the SAGAR requirement for four original signatures before the letter is delivered.

The lead auditor reminded the SAGAR officials that each official notice of delistment provided to FSIS through the Embassy should contain the reason for the delistment (these letters did not contain the reasons for the delistments).

7. The lead auditor reminded SAGAR of the official FSIS policy that, as stated in the FSIS letter sent to all exporting countries October 6, 1999, any establishment delisted by a country after notification of an intent to audit by FSIS (or delisted during or as a result of an on-site FSIS audit) may not be re-listed without giving FSIS the option to conduct an on-site audit of the establishment before it is re-listed. the SAGAR officials claimed that this letter had not been received, and that, as a result, SAGAR was unaware of this policy. He further stated that SAGAR had determined that the lack of controls that had led to the “temporary” delistment of Ests. 114 and 209 had been addressed and corrected, and that SAGAR would like to reinstate the eligibility of these two establishments to export to the United States. After consultations with International Policy Division, it was agreed that these two establishments would be included in the list of establishments to be visited on-site during this audit.

### Headquarters Audit

There had been no changes in the organizational structure or upper levels of inspection staffing since the last U.S. audit of Mexico’s inspection system in November 1999.

To gain an accurate overview of the effectiveness of inspection controls, FSIS requested that the audits of the individual establishments be led by the inspection officials who normally conduct the routine periodic reviews for compliance with U.S. specifications (the Mexican State Supervisors). The FSIS auditors observed and evaluated the process.

### Government Oversight

SAGAR had assured FSIS that all inspection veterinarians and inspectors in establishments certified by Mexico as eligible to export meat products to the United States were full-time SAGAR employees, receiving no remuneration from either industry or establishment personnel. However, it was determined that the person conducting post-mortem of beef viscera in Est. TIF-120 on the day of the FSIS audit—on which the Veterinarian-In-Charge assured the auditor that

all FSIS requirements were being met and that the product would be eligible for export to the United States—was *not*, in fact, a full-time SAGAR employee, but was an establishment employee. No explanation for this situation was offered by SAGAR.

### Establishment Audits

Thirty-four establishments were certified to export meat and/or poultry products to the United States at the time this audit was conducted. Eleven establishments were visited for on-site audits. In ten of the eleven establishments visited, both SAGAR inspection system controls and establishment system controls were in place, or adequate corrective actions were taken, to prevent, detect, and control contamination and adulteration of products.

### Laboratory Audits

During the audits of seven laboratories that were conducting analysis of field samples, from establishments listed as eligible to export to the U.S., for the presence of *Salmonella* species, emphasis was placed on the application of procedures and standards that were equivalent to U.S. requirements. Information was also collected about the risk areas of government oversight, intra-laboratory quality assurance procedures, including sample handling, and methodology, as well as about the Mexican laboratories' programs for testing for generic *E. coli*, where applicable. No laboratories participating in Mexico's national residue testing program were audited at this time.

Mexico's microbiological testing for *Salmonella* was being performed in both private and government laboratories. In the private laboratories, the auditors determined whether the system met the criteria established for the use of private laboratories under FSIS's Pathogen Reduction/HACCP rule (the deviations from the criteria are listed below). These criteria are:

1. The laboratories must be accredited/approved by the government, accredited by third party accrediting organization with oversight by the government, or a government contract laboratory.
2. The laboratories must have properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping capabilities.
3. Results of analyses must be reported to the government or simultaneously to the government and establishment.

The following laboratories were audited:

1. Laboratorio de Lloyd Mexicanos, S. de R.L. de C.V., in Mexico City
2. Laboratorio de Patologia de Tecas de Aguascalientes, in Aguascalientes
3. Laboratorio de Productos Chata, in Culiacán
4. Laboratorio Sana Internacional, in Est. TIF-86, San Luis Rio Colorado

5. Laboratorio de Microbiologia Sanitarias in the University Autonoma, Baja California
6. Laboratorio Central de Monterrey, in Monterrey
7. Laboratorio Central Regional de Mérida, in Mérida

The concerns that arose as a result of the laboratory audits are discussed later in this report, under the headings Testing for Generic *E. coli* and Testing for *Salmonella* Species.

#### Establishment Operations by Establishment Number

The following operations were being conducted in the eleven establishments audited:

Pork, beef, and turkey canning, cooked and dry (chorizo) sausage and ham production (Est. TIF-89)  
Processing of beef and pork into portion-controlled, frozen, packaged foods (Est. TIF-86)  
Pork processing and cooked sausage production (Est. TIF-148)  
Beef, pork, and poultry prepared foods (Est. TIF-209)  
Pork slaughter, boning, and cutting (Est. TIF-57)  
Beef slaughter and cutting (Est. TIF-120)  
Beef slaughter and boning (Est. TIF-111)  
Beef prepared foods (Est. TIF-150)  
Beef processing (Est. TIF-114)  
Beef slaughter (Est. TIF-105)  
Beef drying (Est. TIF-104)

#### SANITATION CONTROLS

Based on the on-site audits of establishments, Mexico's inspection system had controls in place for back-siphonage prevention, separation of establishments, temperature control, operations and inspectors' work space, ventilation, approval of facilities and equipment, welfare facilities, outside premises, personal dress and habits, product reconditioning and transportation, operational sanitation, and waste disposal.

#### Sanitation Standard Operating Procedures (SSOPs)

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment A).

The SSOPs were found to meet the basic FSIS regulatory requirements, with these exceptions:

1. In Est. TIF-89, documentation of pre-operational findings, corrective actions, and preventive measures was practically nonexistent, and there was almost no documentation of condensation findings and control (many condensation problems were encountered during the audit).



2. In Ests. TIF-104, 105 & 114, preventive measures were not recorded in the documentation.
3. Also, in Est. TIF-114, the frequency of pre-operational sanitation was not included in the written procedure, the person(s) responsible for pre-operational sanitation were not designated in the procedure, and no pre-operational sanitation observations or corrective actions were recorded.
4. In Est. TIF-120, there was no documentation of condensation problems in carcass coolers, although heavy condensation was observed to be dripping onto exposed product during the audit.

In all five of these establishments, management officials agreed to improve the documentation to meet the requirements.

Furthermore, the following sanitation deficiencies were found:

#### Sanitary Dressing

1. In Est. TIF-105, the bung cutter was not sanitizing his knife after contaminating it; also, the plastic bags used for the bungs were not securely placed, which resulted in contamination of the interior of the carcasses. Management officials corrected this immediately.
2. Neither the sticker nor the bung operator in Est. TIF-111 were sanitizing their knives immediately after opening skin cuts, before continuing operations. Establishment management officials took immediate corrective actions.

#### Contamination Control

1. In Est. TIF-57, beef heads were contacting a stainless steel plate at the evisceration platform, and carcasses were allowed to contact each other prior to the final inspection station. Corrective action was not immediate, but management officials stated that a new chain had been purchased that would ensure adequate separation of carcasses.
2. In Est. TIF-105, carcasses were contacting the dirty sleeves of the eviscerating operator. Establishment management officials took immediate corrective action.
3. At the final carcass inspection station in Est. TIF-57, the hand soap dispenser had broken off during the previous night's cleaning. The inspector did not require correction, but performed his duties without soap. It was replaced immediately by the establishment during the audit.

#### Pre-Operational Sanitation

During the inspection of the boning room in Est. TIF-120 before the start of operations, all equipment had passed pre-operational sanitation inspection by both establishment personnel and the Veterinarian-In-Charge. The auditor pointed out that product residues from the previous day's production were present on the main conveyor belt and also on a second conveyor belt used

for trimmed fat that was situated directly above the main conveyor belt. Furthermore, several cutting boards were heavily scored, uncleanable, and had deep gouges in which black residues were imbedded. Foreign material was also present on other cutting boards. The SAGAR officials then ordered a complete cleaning of the entire area and replacement of the deteriorated cutting boards before operations were allowed to commence.

#### Product Handling and Storage

1. Condensation was contaminating exposed product in four establishments (TIF-89, 105, 111, and 120). Corrective actions by inspection personnel were immediate in all but Est. TIF-111 (the establishment summoned maintenance personnel to fix the drip, but no corrective action was taken regarding the carcasses that were being contaminated until the auditor pointed out the need).
2. Condensation was present in product and product-flow areas in Ests. TIF-104, 114, and 209. Establishment management officials took immediate corrective actions.
3. In Est. TIF-209, product-contact packaging materials were stored under insanitary conditions. Corrective actions were taken by inspection personnel.
4. Degreasing compound in Est. TIF-120 was stored in a large barrel with the embossed identification of corn syrup, which it had originally contained. Inspection personnel ordered immediate correction.

#### Sanitizers

1. Multiple sanitizers were found to be below the required temperature in Ests. TIF-111 and 120; corrective actions were immediate.
2. In Est. TIF-148, although all sanitizers were at the required temperature on the day of the audit, a review of the records indicated that water temperatures of sanitizers measured as less than the required 180° were documented as "ok." The persons monitoring the sanitizer temperatures were immediately educated regarding the requirement, and a new document for the daily monitoring of the sanitizer temperatures was developed before the audit was finished.
3. The sanitizer for the splitting saw in Est. 105 was not of adequate size to accommodate the critical surfaces of the implement for which it was intended. Management officials ordered prompt correction.

#### Lighting

FSIS requires 50 foot-candles (fc) of shadow-free light at the surfaces that require inspection at post-mortem inspection stations. Lighting was found to be inadequate in two of the four slaughter establishments audited: In Est. TIF-57, a swine slaughter facility, only 17 fc of light were available at the final carcass inspection station, 10 fc at the viscera trays, and 9 fc at the

head inspection station. In Est. TIF-111, a beef operation, only 10 fc were present in the abdominal cavities. Prompt installation of compliant lighting was scheduled at both establishments.

### Maintenance and Cleaning

Maintenance and cleaning of overhead structures was found to have been neglected in Ests. TIF-57, 89, 120, 150, and 209. In Est. TIF-89, repairs had been scheduled, but product was still being stored in areas of dubious condition. In the other four establishments, management officials agreed to make repairs in a timely fashion.

### Pest Control

1. In Est. TIF-89, live birds, spiders, and old cobwebs were present in the bulk ingredient storage area. Corrective actions were not immediate, but were initiated before the audit was completed.
2. In Est. TIF-120, dozens of flies were found in the chemical storage room, which opened into the establishment, and rodent feces were found in the carton storage room (there were no bait stations in the area, and there was no evidence in the pest control monitoring reports of any evidence of rodent activity). Repair of the chemical storeroom door and implementation of pest control in the carton storeroom were scheduled promptly.

### Personal Hygiene

1. In Est. TIF-57, several butchers were not washing their hands and sterilizing their knives after trimming grease smears from carcasses. Inspection officials corrected the situation immediately.
2. In Est. TIF-105, several employees were wearing metal mesh gloves that were not covered with an impervious glove and were touching contaminated areas and subsequently handling exposed product. Management officials took corrective actions.

### Water Potability

1. A backup water well in Est. TIF-105 did not have a current microbiological test on file.
2. No microbiological testing was done annually, as required, on water received by Est. TIF-150 from the local municipality.

In both cases, management officials agreed to perform the required potability testing and to maintain the documentation.

## ANIMAL DISEASE CONTROLS

Mexico's inspection system had controls in place to ensure adequate animal identification, humane slaughter, condemned and restricted product control, and procedures for sanitary handling of returned and rework product. There were reported to have been no outbreaks of animal diseases with public-health significance since the previous U.S. audit.

Problems related to the suspect pens in ante-mortem areas were identified in two establishments: In Est. TIF-111, the suspect pen had not been equipped for independent drainage (this deficiency had been identified during the previous FSIS audit), and in Est. TIF-120, part of the low wall at the lowest corner of the suspect pen had broken out so that independent drainage was not ensured. Establishment officials in both establishments agreed to make the necessary repairs in a timely manner.

## RESIDUE CONTROLS

The usual in-depth audit of the national residue testing program, which normally includes audits of at least one laboratory performing analytical procedures for residues in meat, was not within the scope of this special audit of Mexico's meat inspection system.

Mexico's National Residue Testing Plan for 2000 was being followed, and was on schedule. The Mexican inspection system had adequate controls in place to ensure compliance with sampling and reporting procedures and use of chemicals.

One deficiency was identified regarding chemical storage: Cleaning compounds were found to be stored under insanitary conditions in Ests. TIF-111 and 120 (this was a repeat finding in Est. TIF-111). In both establishments, inspection officials rejected the areas for chemical storage until such time as management officials could ensure that these area had undergone acceptable maintenance and cleaning and that programs to include them in the routine sanitation schedule had been developed and implemented.

## SLAUGHTER/PROCESSING CONTROLS

Except as noted below, the Mexican inspection system had controls in place, in the establishments audited, to ensure adequate boneless meat reinspection; humane handling and slaughter; ingredients identification; formulations; packaging materials; laboratory confirmation; label approvals; inspector monitoring; processing schedules, equipment, and records; empty can inspection filling procedures; container closure exam; interim and post-processing handling; processing defect actions by establishment personnel; and processing control by inspection personnel.

One deficiency was found: There were illegible corrections in the incubation log in Est. TIF-89. (This problem had been identified during the previous FSIS audit.) Inspection personnel ordered instruction of the responsible individuals to ensure that all corrections would remain legible.

## HACCP Implementation

All establishments approved to export meat products to the U.S. are required to have developed and implemented a Hazard Analysis–Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment B).

The HACCP programs were found to meet the basic FSIS regulatory requirements, with these exceptions:

1. Pre-shipment document reviews were not being performed in Establishments TIF-86, 89, 105, 111, and 120. During the previous FSIS audit of Mexico, it had been determined that no pre-shipment document reviews, as required in the Pathogen Reduction/HACCP Final Rule, were being conducted in any Mexican establishments, and this requirement had been explained by the lead auditor to the Mexican authorities. This requirement was once again explained in detail, in each establishment in which the deficiency was found, as well as during the final exit meeting in Mexico City. The SAGAR officials stated that they understood the requirement. Note: In Ests. 86 and 105, draft documents to fulfill this requirement were developed before the audits of the establishments were complete.
2. Critical limits for two Critical Control Points for zero tolerance for contamination with feces/ingesta were not adequately monitored in Est. TIF-111, and in Est. TIF-114, the critical limits were not specifically defined, so that documentation was also not adequate. The requirements were explained, and the management officials stated that they would be met.

## Testing for Generic *E. coli*

Mexico had adopted the FSIS regulatory requirements for *E. coli* testing.

The four slaughter establishments visited were required to meet the basic FSIS regulatory requirements for generic *E. coli* testing, and were audited and evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment C). The following concerns arose:

1. Problems were observed regarding the sponge sampling and testing of carcasses for generic *E. coli*. As specified by the PR-HACCP regulation, a sterile sponge of consistent size is to be immersed in a known quantity of diluent and used to swab three pre-determined 100 cm<sup>2</sup> areas of a carcass and replaced in the diluent; the diluent is then analyzed quantitatively. Most approved laboratories that were performing generic *E. coli* testing were observed to be performing it incorrectly in some manner. There appeared to be much confusion about the volume of diluent to add to the sponge, both prior to sampling and later at the laboratory. (The total volume of diluent in the sponge at the time of analysis is critically important for correct calculation of the results.) There also was confusion about the appropriate units for the results (which are to be expressed as Colony-Forming Units/cm<sup>2</sup>) and the calculations necessary to obtain these results. In one laboratory, an inappropriate method was used for

quantification of *E. coli*. In another laboratory, there was no water bath for the proper incubation of *E. coli* broth using the most-probable-number method the laboratory personnel had chosen to employ.

2. A surprisingly inconsistent variety of sponge materials was found to be in use for both *Salmonella* and generic *E. coli* testing. Some of these sponges were undersized and documentation could not be provided that they did not contain anything inhibitory to the target bacteria. Because both sponge material and volume of the diluent appeared to be significant areas of confusion, it was determined that SAGAR had not exercised adequate controls over either the commercial source for these materials or the respective responsibilities of all persons involved in the sampling and testing. There appeared to be insufficient central control over the procurement and distribution of appropriate sampling materials, as well as too little inter-communication among those involved in sampling and testing.
3. All establishments that export raw ground beef to the U.S. must test for the presence of *E. coli* 0157:H7 in those products. The U.S. enforces a zero-tolerance policy for the presence of *E. coli* 0157:H7 in raw ground beef. SAGAR was using alternate methods to the one used by FSIS for these analyses, none of which had been submitted to FSIS for equivalence determination. One of the approved laboratories was found to be attempting to use a generic *E. coli* method to detect serotype 0157:H7; however, this method offered no possibility for selective detection of that pathogen.

## ENFORCEMENT CONTROLS

### Inspection System Controls

Except as otherwise noted, the SAGAR inspection system controls [control of restricted product and inspection samples; control and disposition of dead, dying, diseased or disabled animals; boneless meat reinspection; shipment security, including shipment between establishments; prevention of commingling of product intended for export to the United States with domestic product; monitoring and verification of establishment programs and controls (including the taking and documentation of corrective actions under HACCP plans); inspection supervision and documentation; the importation of only eligible livestock or poultry from other countries (i.e., only from eligible countries and certified establishments within those countries); and the importation of only eligible meat or poultry products from other countries for further processing] were in place and effective in ensuring that products produced by the establishment were wholesome, unadulterated, and properly labeled. In addition, adequate controls were found to be in place for security items, shipment security, and products entering the establishments from outside sources.

The following deficiencies were found:

1. In Est. TIF-111, ante-mortem inspection was not being conducted on the day of slaughter, but rather the afternoon before, because “the light was better;” also, the cattle were not being observed from both sides in motion. The auditor explained these FSIS requirements in detail, to inspection personnel, both in the establishment and during the final exit meeting in Mexico City.
2. Post-mortem inspection of the beef viscera in Est. TIF-120 was being performed by an “accredited” veterinarian who was not an employee of the federal government (SAGAR) but who received his remuneration from the establishment. Before the auditor initiated his audit of the post-mortem inspection procedures, he had inquired of the Veterinarian-In-Charge if the day's production was eligible for export to the United States, i.e., if all procedures required for compliance with U.S. requirements were being implemented on the day of the audit, and the latter had replied in the affirmative. This issue had been raised during the previous two audits of Mexico’s meat inspection system, and the non-negotiable requirement that all post-mortem inspection procedures must be conducted by a full-time member of the federal regulatory authority had been explained to the Mexican meat inspection authorities both verbally and in writing. No explanation was offered to the auditor, either at the time of this occurrence or during the final exit meeting in Mexico City, as to how this unacceptable situation had been allowed to recur.

#### Testing for *Salmonella* Species

Four of the establishments audited were required to meet the basic FSIS regulatory requirements for *Salmonella* testing, and were evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment D).

Mexico had adopted the FSIS regulatory requirements for HACCP. SAGAR had assured FSIS that Mexico’s *Salmonella* testing program was the same as that employed by FSIS, with exception of the following equivalent measures:

1. LABORATORIES. Private laboratories analyze samples.
  - The approval/accreditation process for private laboratories is done in accordance with Mexico's Federal Animal Health Law, the Federal Law on Metrology and Standardization, the Criteria for the Operation of Animal Health Testing Laboratories, and the Characteristics and Specifications for Facilities and Equipment for Animal Health Testing and/or Analyzing Laboratories. The approval/accreditation process and on-going verification are conducted by Mexico (SAGAR).
  - Private laboratories have properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping facilities.
  - Test results are sent from the private laboratories directly to the General Directorate of Animal Health of the Government of Mexico.

The auditors expected that, following the audit of Mexico's microbiology laboratories the previous year, SAGAR would have implemented the FSIS method for detection of *Salmonella* in Pathogen Reduction (PR)-HACCP carcass sponge and ground meat samples representing products intended for export to the U.S. However, the audits revealed that none of the labs visited were using, or were currently prepared to use, the FSIS *Salmonella* method. It was determined that the necessary media and materials for that method had, in fact, been ordered—although apparently only several weeks prior to this audit. Most of the approved labs were using the Mexican *NOM* procedure for U.S. export samples, but the auditors also observed that one laboratory was using the Neogen Reveal enrichment and immunoassay procedure to reduce the required analysis time. Neither of those methods had been submitted to the International Policy Division/Equivalence Branch in Washington D.C., for equivalence determination.

### Species Verification

At the time of this audit, Mexico was not exempt from the species verification requirement; however, there was no program in place for routine species verification of products produced in establishments where multiple species were processed.

In all slaughter establishments, species verification was routinely performed on the samples submitted by SAGAR at least once per month from slaughtered animals for residue testing.

In all slaughter establishments, the Veterinarian-In-Charge created documentation of visual verification of the species of the meat that left the establishment, and this documentation accompanied the meat to any establishment receiving the meat. As stated above, no samples were being submitted by SAGAR specifically for verification of species in final products.

In all processing establishments that received meat from more than one species and from more than one slaughter establishment, there was a national SAGAR program whereby each IIC took samples of the incoming meat at least once per month and submitted them to a SAGAR-approved laboratory for analysis for toxic residues, and species verification was also performed on these samples. In Est. 89, the Veterinarian-In-Charge also was performing and documenting his own additional visual species verification on the meat products received by the establishment.

### Monthly Reviews

FSIS requires documented supervisory visits by a representative of the foreign inspection system to each establishment certified as eligible to export to the United States, not less frequently than one such visit per month, during any period when the establishment is engaged in producing products that could be used for exportation to the United States.

These reviews were being performed by the Mexican State Supervisors. All were veterinarians, and all had received the same training as the in-plant personnel, including formal HACCP training. The internal reviewers reported to Dr. Alejandro H. Jiménez Ceballos, Chief, Dept of Processing and Slaughter Establishments. The internal reviewers had an advisory function. Their findings were reported to Dr. Jiménez, who then decided what actions were to be taken.



Routine reports were sent by mail and could take from one week to two months to be reported to Dr. Jiménez. In the event of noncompliance, results were conveyed by telephone.

The internal review program was applied equally to both export and non-export establishments. Annually scheduled audits were announced in advance, and reviews organized by State Supervisors were sometimes announced, sometimes not. The pre-scheduled ones were done by a team consisting of one of the national reviewers and a state reviewer. The internal reviews were conducted a minimum of once per month in each est. that produces product eligible for the U.S. The records of reviewed establishments were kept in the central Mexico City offices, in each State and in the establishments, and were maintained on file for at least 1 year.

The internal reviewers were kept up to date on US requirements through special training sessions, mail, and e-mail.

If, during a routine internal review, the supervising inspector determines that there are deficiencies of such a nature that the establishment would no longer meet US requirements, that inspector would write a letter to the establishment management describing the problems and would also immediately inform SAGAR headquarters. No further action would be taken until the next routine visit by the supervising inspector, at which time he/she would determine if adequate corrective actions have been taken. If not, SAGAR must request legal permission from the establishment management to conduct a follow-up inspection to verify compliance with requirements following the recommendation of the official who found the problems during the routine inspection. This takes an average of 15 days to obtain. The regional inspector from SAGAR headquarters would then perform an on-site verification inspection. SAGAR would not proceed with a delistment process until an official from the main office has visited the establishment and has determined that the violations reported continue to exist. In practice, then, under the system in place at the time of this audit of Mexico's meat inspection system, if an internal reviewer determines that an establishment under his/her supervision fails to meet U.S. requirements, six weeks or more may elapse until the establishment may be delisted by SAGAR and thereby excluded from exporting its products to the United States.

### Enforcement Activities

The usual in-depth examination of documents pertaining to enforcement activities was not within the scope of this special audit of Mexico's meat inspection system. SAGAR did provide copies of the letters of delistment for Ests. 15, 62, 114, 171, 177, and 209, which were delisted shortly before the start of this audit.

During this audit, Establishment TIF-120 was one of the establishments selected for an on-site visit. During the course of the audit, the State Supervisor, who—at the request of FSIS as explained earlier—was leading the audit, decided that the establishment did not meet U.S. requirements and stated to the auditor that, in her opinion, the establishment should therefore be evaluated as unacceptable. The FSIS auditor was in complete agreement with her decision,

informed her of this fact, and, as is the protocol in this situation, officially recommended that SAGAR remove Est. TIF-120 from the list of establishments eligible to continue to export products to the United States, effective as of the start of business on the day of the audit (November 30, 2000), and requested that a copy of the official delistment notice, which is to be promptly provided to FSIS through the Agriculture Section of the American Embassy in Mexico City, be provided to him during the country exit meeting on December 8.

When, during this country exit meeting in Mexico City, the lead auditor requested the copy of this delistment notice, the SAGAR officials informed him that the establishment had, in fact, *not* been delisted by SAGAR, but had been allowed to continue to remain eligible to export its products to the United States. The SAGAR officials stated that the Chief of the Dept. of Processing and Slaughter Establishments had personally flown to Mexicali for a follow-up inspection, and had determined that the problems that had been described had been addressed and corrected.

Following FSIS protocol, in the event that the meat inspection officials disagree with an FSIS International Audit Staff Officer's decision that an establishment in an exporting country is unacceptable, the lead auditor presented a written official notification to the SAGAR officials, which stated that the auditor had found substantial variances from U.S. standards in Est. TIF-120 of such a nature that they might result in termination of eligibility of this establishment by the FSIS Administrator, and advised SAGAR to segregate all product from this establishment produced on and after the date of the audit pending a decision by the Administrator.

The lead auditor then placed a telephone call to the Director of the Audit Staff and informed him of his findings in Est. TIF-120. The Director, in turn, informed the Equivalence Branch of the Office of Policy, Program Development and Evaluation (OPPDE) in Washington, D.C., and the decision by the International Audit Staff Officer that the establishment was unacceptable was supported. Establishment TIF-120 was officially delisted by OPPDE as of the start of business on November 30, 2000, and all import inspection stations at U.S. ports of entry were notified to refuse entry to all products produced by that establishment as of that date.

The SAGAR officials accepted the official notification from the lead auditor, and stated that SAGAR would submit a letter explaining in detail the procedures required to delist an establishment and explain-ing why Est. TIF-120 had not been delisted.

A follow-up audit of Est. TIF-120 was scheduled for January 4, 2001.

### Exit Meeting

An exit meeting was conducted in Mexico City on December 8. The Mexican participants were Dr. Octavio Carranza, Director, Imports, Exports, and Industry Services; Dr. Martha Chavez, Deputy Director, Imports, Exports, and Industry Services; Dr. Alejandro Jiménez Ceballos, Chief of the Department of Federally Inspected Meat Processing and Slaughter Facilities; Dr. Maria Isabel Ramos Tenorio, Official Supervisor; Dr. Daniel Gonzales, Coordinator, CENAPA Laboratory; and Dr. Concepcion Silva, Supervisor, SAGAR Main Office. Mr. Salvador Trejo, Agricultural Specialist with the American Embassy in Mexico City was also in attendance. The FSIS

audit team consisted of Dr. Gary D. Bolstad (Lead Auditor) and Dr. Douglas Parks, International Audit Staff Officers; Dr. F.A. Khan, Audit Staff Officer; Mr. Victor Cook, Staff Officer and Microbiologist, Biosciences Division, Office of Public Health and Science; and Mr. Dennis Reisen, Processing Operations Staff Officer.

The following topics were discussed:

1. The unacceptability of post-mortem inspection of U.S.-eligible product being performed by inspection personnel who are not full time employees of the federal government meat inspection authority was discussed in detail. The SAGAR officials indicated that they understood.
2. There was extended discussion regarding the fact that Est. TIF-120 had not been delisted by SAGAR as a result of the decision, reached by the SAGAR State Supervisor who had led the audit, that the establishment did not meet U.S. requirements. See the Enforcement Activities section of this report. The FSIS audit team reminded SAGAR of the official FSIS policy that, as stated in the FSIS letter sent to all exporting countries on October 6, 1999, any establishment delisted during or as a result of an on-site FSIS audit (or by a country after notification of an intent to audit by FSIS) may not be re-listed without giving FSIS the option to conduct an on-site audit of the establishment before it is re-listed.
3. A possible alternative to delisting an establishment, when a single problem arises that may be resolved in a relatively short time, namely *temporary suspension* of an establishment's permission to export to the United States, was discussed. In this case, the embassy and FSIS need *not* be notified of the suspension; however, the establishment must be notified, and SAGAR must ensure that, during the period of suspension, no export certificates may be created and no product produced may be shipped to the U.S. The lead auditor also explained that, if International Policy Division receives official notification by the embassy, this is likely to be interpreted as a delistment, and product may be detained at U.S. ports of entry as a result.

The lead auditor stressed that, on the other hand, if an establishment is delisted, it is very important that the date the delistment goes into effect is clearly indicated on the official notice. This is important, because International Policy Division directs ports of entry to detain or refuse entry of product at ports of entry according to this date.

4. The deficiencies identified regarding sanitation controls, animal disease controls, residue controls, and slaughter/processing controls, most of which had been satisfactorily addressed and corrected at the time they had been found, were reiterated.
5. The laboratories' failure to implement (1) the FSIS method for detection of *Salmonella* in PR-HACCP carcass sponge and ground meat samples representing products intended for export to the U.S., (2) use of a procedure that would detect *E. coli* serotype O157:H7 in ground beef samples, (3) reliably compliant sponge sampling and testing of carcasses for generic *E. coli* and methods for analysis and calculation of results, and (4) oversight of the

materials used for the sampling sponges and the amount of diluent was discussed in detail. The FSIS audit team microbiologists recommended that SAGAR arrange for on-site familiarization with the methods employed in FSIS-accredited laboratories.

Furthermore, the microbiologists emphasized that alternate testing methods for *Salmonella* and *E. coli* 0157:H7, other than those used by FSIS, may be equivalent; however, these must be submitted to FSIS for equivalence determination before they may be employed on U.S.-eligible product. In the meantime, it is critically important that the FSIS method be implemented as soon as possible until an alternative method is approved.

5. The details of the FSIS requirement for pre-shipment document reviews were explained in detail. The SAGAR officials indicated that they understood the requirement and would ensure its universal implementation for all shipments of U.S.-eligible products.
6. The lead auditor provided a detailed description of the FSIS requirement for 50 foot-candles of shadow-free light at the inspection surfaces at post-mortem inspection stations, and recommended that the light intensity at these critical surfaces be measured by the State Supervisors during their routine internal reviews.
8. The importance of adequate daily documentation of (1) the monitoring of critical limits for CCPs and (2) pre-operational and operational sanitation findings, corrective actions, and preventive measures was emphasized. The SAGAR officials indicated that they understood the requirement and would see to it that the deficiencies would be corrected.

## CONCLUSION

The inspection system of Mexico was found, except as otherwise noted in this report, to have effective controls in ten of the eleven establishments audited, to ensure that product destined for export to the United States was produced under conditions equivalent to those that FSIS requires in domestic establishments.

Eleven establishments were audited: seven were acceptable, three were evaluated as acceptable/re-review, and one was unacceptable. Unless otherwise noted, the deficiencies encountered during the on-site establishment audits, in those establishments that were found to be acceptable, were adequately addressed to the auditors' satisfaction.

Dr. Gary D. Bolstad, Lead Auditor  
International Audit Staff Officer

(Signed) Dr. Gary D. Bolstad

## ATTACHMENTS

- A. Data collection instrument for SSOPs
- B. Data collection instrument for HACCP programs
- C. Data collection instrument for generic *E. coli* testing
- D. Data collection instrument for *Salmonella* testing

### Data Collection Instrument for SSOPs

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

1. The establishment has a written SSOP program.
2. The procedure addresses pre-operational sanitation.
3. The procedure addresses operational sanitation.
4. The pre-operational procedures address (at a minimum) the cleaning of food-contact surfaces of facilities, equipment, and utensils.
5. The procedure indicates the frequency of the tasks.
6. The procedure identifies the individuals responsible for implementing and maintaining the activities.
7. The records of these procedures and any corrective action taken are being maintained on a daily basis.
8. The procedure is dated and signed by the person with overall on-site authority.

The results of these evaluations were as follows:

Est. #	1. Written program addressed	2. Pre-op sanitation addressed	3. Oper. sanitation addressed	4. Contact surfaces addressed	5. Frequency addressed	6. Responsible indiv. identified	7. Documentation done daily	8. Dated and signed
57	√	√	√	√	√	√	√	√
86	√	√	√	√	√	√	√	√
89	√	√	√	√	√	√	Inadeq*	√
104	√	√	√	√	√	√	Inadeq*	√
111	√	√	√	√	√	√	√	√
120	√	√	√	√	√	√	Inadeq*	√
148	√	√	√	√	√	√	√	√

89 – There was adequate documentation of operational sanitation activities, except regarding condensation control (many problems were found during the audit), but documentation of pre-operational findings, corrective actions, and preventive measures was not routinely performed.

104 – Preventive measures were not being recorded.

120 -- There was no documentation of condensation problems in carcass coolers. Heavy condensation was observed to be dripping onto exposed product during the audit.

### Data Collection Instrument for HACCP Programs

Each of the establishments approved to export meat products to the U.S. was required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

1. The establishment has a flow chart that describes the process steps and product flow.
2. The establishment has conducted a hazard analysis that includes food safety hazards likely to occur.
3. The analysis includes the intended use of or the consumers of the finished product(s).
4. There is a written HACCP plan for each product where the hazard analysis revealed one or more food safety hazard(s) reasonably likely to occur.
5. All hazards identified in the analysis are included in the HACCP plan; the plan lists a CCP for each food safety hazard identified.
6. The HACCP plan specifies critical limits, monitoring procedures, and the monitoring frequency performed for each CCP.
7. The plan describes corrective actions taken when a critical limit is exceeded.
8. The HACCP plan was validated using multiple monitoring results.
9. The HACCP plan lists the establishment's procedures to verify that the plan is being effectively implemented and functioning and the frequency for these procedures.
10. The HACCP plan's record-keeping system documents the monitoring of CCPs and/or includes records with actual values and observations.
11. The HACCP plan is dated and signed by a responsible establishment official.
12. The establishment is performing routine pre-shipment document reviews.

The results of these evaluations were as follows:

Est. #	1. Flow diagram	2. Hazard analysis conducted	3. Use & users included	4. Plan for each hazard	5. CCPs for all hazards	6. Monitoring is specified	7. Corr. actions are described	8. Plan validated	9. Adequate verific. procedures	10. Adequate documentation	11. Dated and signed	12. Pre-shipment doc. review
57	√	√	√	√	√	√	√	√	√	√	√	√
86	√	√	√	√	√	√	√	√	√	√	√	no*
89	√	√	√	√	√	√	√	√	√	√	√	no
104	√	√	√	√	√	inad*	√	√	√	√	√	√
111	√	√	√	√	√	inad*	√	√	√	no	√	no
120	√	√	√	√	√	√	√	√	√	√	√	no
148	√	√	√	√	√	√	√	√	√	√	√	√

86\* -- The requirement for a pre-shipment document review had not been understood; however, a draft document to fulfill this requirement was developed and a copy was supplied to the Auditor

104\* -- The critical limits for two CCPS were not specific.

### Data Collection Instrument for Generic *E. coli* Testing

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for generic *E. coli* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

1. The establishment has a written procedure for testing for generic *E. coli*.
2. The procedure designates the employee(s) responsible to collect the samples.
3. The procedure designates the establishment location for sample collecting.
4. The sample collection is done on the predominant species being slaughtered.
5. The sampling is done at the frequency specified in the procedure.
6. The proper carcass site(s) and/or collection methodology (sponge or excision) is/are being used for sampling.
7. The carcass selection is following the random method specified in the procedure or is being taken randomly.
8. The laboratory is analyzing the sample using an AOAC Official Method or an equivalent method.
9. The results of the tests are being recorded on a process control chart showing the most recent test results.
10. The test results are being maintained for at least 12 months.

Est. #	1. Written procedure	2. Sampler designated	3. Sampling location given	4. Predominant species sampled	5. Sampling at the req'd freq.	6. Proper site or method	7. Sampling is random	8. Using AOAC method	9. Chart or graph of results	10. Results are kept at least 1 yr
57	√	√	√	√	√	√	√	√	√	√
86*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
111	√	√	√	√	√	√	√	√	√	√
120	√	√	√	√	√	√	√	√	√	√
148	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

86 – Although generic *E. coli* testing was not required in this establishment, the quality control program included testing of all finished products daily and of raw materials once per month, for total plate count, *Salmonella* species, total coliforms, generic *E. coli*, *Staphylococcus*, *Listeria* species, malt, and yeast.



### Data Collection Instrument for *Salmonella* testing

Each slaughter establishment was evaluated to determine if the basic FSIS regulatory requirements for *Salmonella* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

1. *Salmonella* testing is being done in this establishment.
2. Carcasses are being sampled.
3. Ground product is being sampled.
4. The samples are being taken randomly.
5. The proper carcass site(s) and/or collection of proper product (carcass or ground) is being used for sampling.
6. Establishments in violation are not being allowed to continue operations.

The results of these evaluations were as follows:

Est. #	1. Testing as required	2. Carcasses are sampled	3. Ground product is sampled	4. Samples are taken randomly	5. Proper site and/or proper prod.	6. Violative est's stop operations
57	√	√	N/A	√	√	N/A
86	N/A*	N/A	N/A	N/A	N/A	N/A
89	N/A	N/A	N/A	N/A	N/A	N/A
111	√	√	N/A	√	√	N/A
120	√	√	N/A	*	*	N/A
148	N/A	N/A	N/A	N/A	N/A	N/A

86 – Although *Salmonella* testing was not required in this establishment, the quality control program included testing of all finished products daily and of raw materials once per month, for total plate count, *Salmonella* species, total *coliforms*, generic *E. coli*, *Staphylococcus*, *Listeria* species, malt, and yeast.

120 – Due to time constraints, there was not adequate opportunity to assess these aspects of the sampling.